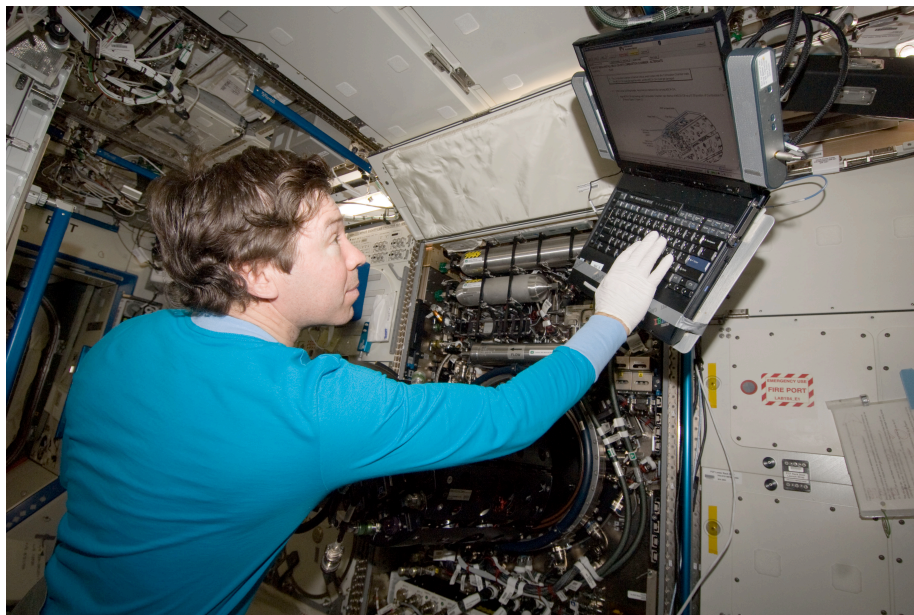


ISS and Human Research Project Office Highlights October 2, 2009

ISS Research Program

HTV-1 Demonstration Resupply Flight Successful

The FCF's Combustion Integrated Rack (CIR) had critical resupplies launched and transported to the ISS on the maiden flight of JAXA's HTV-1 Demonstration Flight. The resupply hardware consisting of new fuel reservoirs, bottles and a fiber kit were within days removed from the HTV and installed by Astronaut Michael Barratt into the CIR to continue science operations. The HTV also transported additional hardware for the Fluids Integrated Rack that was launched on STS-128 in August and installed by the shuttle astronauts. (POC: MAH/Robert Corban (216) 433-6642)



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Astronaut Michael Barratt works on the Combustion Integrated Rack installing new fuel reservoirs and a fiber kit. (9/26/2009)

Five Presentations on Materials International Space Station Experiment (MISSE) Flight Experiments given at the 11th International Symposium on Materials in Space Environment (ISMSE-11):

Five Glenn Materials International Space Station Experiment (MISSE) flight experiment presentations were given at the 11th International Symposium on Materials in Space Environment (ISMSE-11), held September 15-18, 2009 in Aix en Provence, France. Included was an invited overview presentation on the MISSE program. The following listed the specific MISSE papers presented:

- *“Overview of the Materials International Space Station Experiment Program: MISSE 1-7” by Kim de Groh (RES), Karen Gibson (LaRC), Rob Walters (Naval Research Laboratory, NRL), Phil Jenkins (NRL) and Don Jaworske (RES)*

- *“MISSE 2 PEACE Polymers Erosion Morphology Studies” by Kim de Groh (RES) and Bruce Banks (RES/Alphaport)*
- *“Space Environment Exposure Results from the MISSE 5 Polymer Film Thermal Control Experiment on the International Space Station” by Sharon Miller (RES) and Joyce Dever (RXD)*
- *“Changes in Optical and Thermal Properties of the MISSE 2 Polymer Erosion and Contamination Experiment (PEACE) Polymers and Spacecraft Silicones” by Deborah Waters (RES/ASRC), Kim de Groh (RES), Bruce Banks (RES/Alphaport) and Kevin Cameron (RES/OAI)*
- *“Atomic Oxygen Erosion Yield Prediction for Spacecraft Polymers in Low Earth Orbit” by Bruce Banks (RES/Alphaport), Jane Backus (RES/OAI), Michael Manno (RES/Alphaport), Deborah Waters (RES/ASRC), Kevin Cameron (RES/OAI) and Kim de Groh (RES)*

In addition, Glenn attendees also co-chaired several sessions at the conference: Kim de Groh co-chaired the “Synergistic Effects” session, Sharon Miller co-chaired the “In-flight Experiments/Material Exposure and Degradation Experiment (MEDET)” session and Bruce Banks co-chaired the “In-flight Experiments/MISSE and THERME” session. Several international participants indicated that they stayed an extra day at the conference specifically to hear NASA Glenn’s presentations which were held on the last day. Papers will be included in the conference proceedings, to be published soon. The symposium website is: <http://www.ismse11.com/accueil.html>. This work is supported by the International Space Station Research Project. (POC: RES/Kim K. de Groh, (216) 433-2297)

Human Research Program

Harness Operations begin on ISS.

Two crewmembers participated, this week, in the first Harness Station Development Test Objective (SDTO) data collection sessions. All operations were nominal and data retrieval is in process. Data collection continues next week. (POC: MAH/Gail Perusek, (216) 433-8729)